

# UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

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| L | APPLICATION NO. | APPLICATION NO. FILING DATE FIRST NAMED INVENTOR |            |        | /ENTOR |              | ATTORNEY DOCKET NO. |
|---|-----------------|--|------------|--------|--------|--------------|---------------------|
|   | Ø8/682.9        | 997 07/18/                                       | 96 ISHIKA  | λŴΑ    |        | Ħ            | B2Ø8-837            |
| r | _               |  | LNI        | 170422 | - F    | E            | XAMINER             |
| , | JAMES J         | DALEY  |            |        | ' L    | TUNG         |                     |
|   |                 | LECKER DALEY                                     | & DRISCOLL |        |        | •            |                     |
|   | 330 MAD         | ISON AVENUE                                      |            |        | Γ      | ART UNIT     | PAPER NUMBER        |
|   | NEW YORK        | < NY 10017                                       |            |        | _      | 2713         | \                   |
|   |                 |  |            |        | C      | DATE MAILED: | 04/22/98            |

Please find below and/or attached an Office communication concerning this application or proceeding.

**Commissioner of Patents and Trademarks** 

# Office Action Summary

Application No. 08/682,997

Applicant(s)

Ishikawa et al

Examiner

**Bryan Tung** 

Group Art Unit 2713

| Responsive to communication(s) filed on  | ·  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| ☐ This action is <b>FINAL</b> .  |  |  |  |  |  |  |  |
| Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.      |  |  |  |  |  |  |  |
| A shortened statutory period for response to this action is set to is longer, from the mailing date of this communication. Failure application to become abandoned. (35 U.S.C. § 133). Extens 37 CFR 1.136(a). | to respond within the period for response will cause the |  |  |  |  |  |  |
| Disposition of Claims  |  |  |  |  |  |  |  |
| X Claim(s) 1-27  | is/are pending in the application.                       |  |  |  |  |  |  |
| Of the above, claim(s)   | is/are withdrawn from consideration.                     |  |  |  |  |  |  |
| Claim(s)   |  |  |  |  |  |  |  |
|  | is/are rejected.   |  |  |  |  |  |  |
| Claim(s)   | is/are objected to.                                      |  |  |  |  |  |  |
| ☐ Claims   |  |  |  |  |  |  |  |
| Application Papers   |  |  |  |  |  |  |  |
| X See the attached Notice of Draftsperson's Patent Drawin  |  |  |  |  |  |  |  |
| ☐ The drawing(s) filed on is/are object  |  |  |  |  |  |  |  |
| ☐ The proposed drawing correction, filed on  | is approved disapproved.                                 |  |  |  |  |  |  |
| ☐ The specification is objected to by the Examiner.  |  |  |  |  |  |  |  |
| ☐ The oath or declaration is objected to by the Examiner.  |  |  |  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |  |  |  |  |  |
| Acknowledgement is made of a claim for foreign priority  |  |  |  |  |  |  |  |
| ☐ All ☐ Some* ☒ None of the CERTIFIED copies of  | of the priority documents have been                      |  |  |  |  |  |  |
| X received.  | - had  |  |  |  |  |  |  |
| <ul> <li>□ received in Application No. (Series Code/Serial Number)</li> <li>□ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).</li> </ul>                         |  |  |  |  |  |  |  |
| *Certified copies not received:  |  |  |  |  |  |  |  |
| Acknowledgement is made of a claim for domestic prior  |  |  |  |  |  |  |  |
| Attachment(s)  |  |  |  |  |  |  |  |
| Notice of References Cited, PTO-892  |  |  |  |  |  |  |  |
| Information Disclosure Statement(s), PTO-1449, Paper No(s).  |  |  |  |  |  |  |  |
| ☐ Interview Summary, PTO-413   | 40   |  |  |  |  |  |  |
| <ul><li>☒ Notice of Draftsperson's Patent Drawing Review, PTO-9</li><li>☐ Notice of Informal Patent Application, PTO-152</li></ul>   | 40   |  |  |  |  |  |  |
| □ Notice of informal Patent Application, F10-192   |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| SEE OFFICE ACTION ON   | THE FOLLOWING PAGES                                      |  |  |  |  |  |  |

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## Title

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested:
"IMAGE PICKUP SYSTEM WITH COLOR SPACE CONVERSION".

# Drawings

2. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

# Disclosure Informalities

3. Applicant is advised that the lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

## 35 U.S.C. §103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the

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differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 5-13, 15-22, and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa (US 5,734,425) in view of Lightbody (US 5,471,577).

Takizawa discloses an image pickup system comprising: an image sensor (23); a video signal generating means (24); an interface means (29, 35); a control means (29, 36); compression means (col.3, ln.9-12); a ROM (col.3, ln.30-40, 46-51); a reloadable memory (col.3, ln.30-40); wherein the control means communicates with the reloadable memory through the interface means (col.3, ln.46-51; col.4, ln.33-37, 49-51, 59-62); and wherein the image pickup unit is removably attachable to an external signal processing apparatus (see Fig.1). Takizawa does not disclose the compression means to be a color space conversion means using a look-up table.

The use of a look-up table to perform color space conversion is well established in image pickup systems as shown by Lightbody (see element 80). Taking the respective teachings of Takizawa and Lightbody together as a whole, it would have been obvious to one of ordinary skill in the art to adapt the image pickup system of Takizawa for color video processing. Such a modification

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would be made by adding a color space conversion means such as that taught by Lightbody to the existing signal processing functions of Takizawa. Takizawa specifically indicates that the signal processing functions can be changed as desired (col.4, ln.33-37). Such a modification would enhance the utility of Takizawa's system by allowing it to process and output color video.

6. Claims 4, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Takizawa and Lightbody in view of Sakoda (US 5,559,954).

The combination of Takizawa and Lightbody discloses the present invention as claimed except for the step of selecting between a plurality of look-up tables during color space conversion. Lightbody does explain the importance of taking into account the particular output display system while performing color space conversion but does not specifically disclose the use of plural look-up tables (col.5, ln.14-20). Sakoda teaches the use of plural look-up tables to perform color space conversion (col.2, ln.26-36). Taking the respective teachings of Takizawa, Lightbody, and Sakoda together as a whole, it would have been obvious to one of ordinary skill in the art to use plural look-up tables to perform color space conversion as taught by Sakoda since doing so would constitute the substitution of one well

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known color space conversion method for another without significantly affecting the operation or function of the image pickup system of Takizawa and Lightbody.

#### Prior Art

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

## Contact Information

Inquiries concerning this communication or earlier communications from the examiner should be directed to Bryan S. Tung, whose telephone number is 703-308-6614. The examiner can normally be reached Monday-Thursday from 8:00 AM to 5:00 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tommy P. Chin, can be reached at 703-305-4715.

Inquiries of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703-305-3900.

Formal fax communications should be sent to 703-308-9051. Informal fax communications should be marked "DRAFT" or "PROPOSED" and sent to 703-308-5399.

Bryan S. Tung/bst

4-14-98

BRYAN TUNG RIMARY EXAMINER